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hfb1 genomic sequence (SEQ ID No 1)

TTTGTATGGC TGGATCTCGA AAGGCCCTTG TCATCGCCAA GCGTGGCTAA TATCGAATGA GGGACACCGA GTTGCATATC TCCTGATCAT TCAAACGACA AGTGTGAGGT AGGCAATCCT CGTATCCCAT TGCTGGGCTG AAAGCTTCAC ACGTATCGCA TAAGCGTCTC CAACCAGTGC TTAGGTGACC CTTAAGGATA CTTACAGTAA GACTGTATTA AGTCAGTCAC TCTTTCACTC GGGCTTTGAA TACGATCCTC AATACTCCCG ATAACAGTAA GAGGATGATA CAGCCTGCAG TTGGCAAATG TAAGCGTAAT TAAACTCAGC TGAACGGCCC TTGTTGAAAG TCTCTCTCGA TCAAAGCAAA GCTATCCACA GACAAGGGTT AAGCAGGCTC ACTCTTCCTA CGCCTTGGAT ATGCAGCTTG GCCAGCATCG CGCATGGCCA ATGATGCACC CTTCACGGCC CAACGGATCT CCCGTTAAAC TCCCCTGTAA CTTGGCATCA CTCATCTGTG ATCCCAACAG ACTGAGTTGG GGGCTGCGGC TGGCGGATGT CGGAGCAAAG GATCACTTCA AGAGCCCAGA TCCGGTTGGT CCATTGCCAA TGGATCTAGA TTCGGCACCT TGATCTCGAT CACTGAGACA TGGTGAGTTG CCCGGACGCA CCACAACTCC CCCTGTGTCA TTGAGTCCCC ATATGCGTCT TCTCAGCGTG CAACTCTGAG ACGGATTAGT CCTCACGATG AAATTAACTT CCAGCTTAAG TTCGTAGCCT TGAATGAGTG AAGAAATTTC AAAAACAAAC TGAGTAGAGG TCTTGAGCAG CTGGGGTGGT ACGCCCCTCC TCGACTCTTG GGACATCGTA CGGCAGAGAA TCAACGGATT CACACCTTTG GGTCGAGATG AGCTGATCTC GACAGATACG TGCTTCACCA CAGCTGCAGC TACCTTTGCC CAACCATTGC GTTCCAGGAT CTTGATCTAC ATCACCGCAG CACCCGAGCC AGGACGGAGA GAACAATCCG GCCACAGAGC AGCACCGCCT TCCAACTCTG CTCCTGGCAA CGTCACACAA CCTGATATTA GATATCCACC TGGGTGATTG CCATTGCAGA GAGGTGGCAG TTGGTGATAC CGACTGGCCA TGCAAGACGC GGCCGGGCTA GCTGAAATGT CCCCGAGAGG ACAATTGGGA GCGTCTATGA CGGCGTGGAG ACGACGGGAA AGGACTCAGC CGTCATGTTG TGTTGCCAAT TTGAGATTGT TGACCGGGAA AGGGGGGACG AAGAGGATGG CTGGGTGAGG TGGTATTGGG AGGATGCATC ATTCGACTCA GTGAGCGATG TAGAGCTCCA AGAATATAAA TATCCCTTCT CTGTCTTCTC AAAATCTCCT TCCATCTTGT CCTTCATCAG CACCAGAGCC AGCCTGAACA CCTCCAGTCA ACTTCCCTTA CCAGTACATC TGAATCAACA TCCATTCTTT GAAATCTCAC CACAACCACC ATCTTCTTCA AAATGAAGTT CTTCGCCATC GCCGCTCTCT TTGCCGCCGC TGCCGTTGCC CAGCCTCTCG AGGACCGCAG CAACGGCAAC GGCAATGTTT GCCCTCCCGG CCTCTTCAGC AACCCCAGT GCTGTGCCAC CCAAGTCCTT GGCCTCATCG GCCTTGACTG CAAAGTCCGT AAGTTGAGCC ATAACATAAG AATCCTCTTG ACGGAAATAT GCCTTCTCAC TCCTTTACCC CTGAACAGCC TCCCAGAACG TTTACGACGG CACCGACTTC CGCAACGTCT GCGCCAAAAC CGGCGCCCAG CCTCTCTGCT GCGTGGCCCC CGTTGTAAGT TGATGCCCCA GCTCAAGCTC CAGTCTTTGG CAAACCCATT CTGACACCCA GACTGCAGGC CGGCCAGGCT CTTCTGTGCC AGACCGCCGT CGGTGCTTGA GATGCCCGCC CGGGGTCAAG GTGTGCCCGT GAGAAAGCCC ACAAAGTGTT GATGAGGACC ATTTCCGGTA CTGGGAAAGT TGGCTCCACG TGTTTGGGCA GGTTTGGGCA AGTTGTGTAG ATATTCCATT CGTACGCCAT TCTTATTCTC CAATATTTCA GTACACTTTT CTTCATAAAT CAAAAAGACT GCTATTCTCT TTGTGACATG CCGGAAGGGA ACAATTGCTC TTGGTCTCTG TTATTTGCAA GTAGGAGTGG GAGATTCGCC TTAGAGAAAG TAGAGAAGCT GTGCTTGACC GTGGTGTGAC TCGACGAGGA TGGACTGAGA GTGTTAGGAT TAGGTCGAAC GTTGAAGTGT ATACAGGATC GTCTGGCAAC CCACGGATCC TATGACTTGA TGCAATGGTG AAGATGAATG ACAGTGTAAG AGGAAAAGGA AATGTCCGCC TTCAGCTGAT ATCCACGCCA ATGATACAGC GATATACCTC CAATATCTGT GGGAACGAGA CATGACATAT TTGTGGGAAC AACTTCAAAC AGCGAGCCAA GACCTCAATA TGCACATCCA AAGCCAAACA TTGGCAAGAC GAGAGACAGT CACATTGTCG TCGAAAGATG GCATCGTACC CAAATCATCA GCTCTCATTA TCGCCTAAAC CACAGATTGT TTGCCGTCCC CCAACTCCAA AACGTTACTA CAAAAGACAT GGGCGAATGC AAAGACCTGA AAGCAAACCC TTTTTGCGAC TCAATTCCCT CCTTTGTCCT CGGAATGATG ATCCTTCACC AAGTAAAAGA AAAAGAAGAT TGAGATAATA CATGAAAAGC ACAACGGAAA CGAAAGAACC AGGAAAAGAA TAAATCTATC ACGCACCTTG TCCCCACACT AAAAGCAACA GGGGGGGTAA AATGAAAT

Fig. 1

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hfb2 genomic sequence (SEQ ID No 2)

	HindIII				
CTCGAGCAGC		ATGCCTGCAT	CCTTTGTGAG	CGACTGCATC	CATTTTGCAC
			TGGCCAGCTG		
			TCAGGACTAT		
•			CTCATTGGCC		
			GGCAGGGCAC		
			TCAAGAGACA		
			GCTTTTGGAA		
			AACCTGGTAG		
	-		GAGAATGTCC		
			TACGATACCC		
			GTCTAGGTAA		
			TACGGCCTCT		
			TGTGTAGACC		
			GTCTCTGCCT		
		_	CCTACCTATC		
			ACAGACGGCT		
			AACAGCCTGC		
			GATTCCCGCC		
			CACATTCACT		
	_		AACCATCACC		
			TGGCTGCTGT		
CCAACCCTCT	GTGCTGTGCC	ACCAACGTCC	TCGACCTCAT	TGGCGTTGAC	TGCAAGACCC
			GACATTGGAC		
TGCTTTACAG	CTACCATCGC	CGTCGACACT	GGCGCCATCT	TCCAGGCTCA	CTGTGCCAGC
AAGGGCTCCA	AGCCTCTTTG	CTGCGTTGCT	CCCGTGGTAA	GTAGTGCTCG	CAATGGCAAA
GAAGTAAAAA	GACATTTGGG	CCTGGGATCG	CTAACTCTTG	ATATCAAGGC	CGACCAGGCT
CTCCTGTGCC	AGAAGGCCAT	CGGCACCTTC	<u>TAA</u> AGCAATG	GCTTGCTTTA	CTGCCGGCAG
TCTTTGAGAA	CTCTGGGCTC	ACAAAAGACG	ACTTGCATGT	ATCATGGGGG	CTCGCAAATG
GGAGGATTTG	GAGGGGATTG	AGGCTGGGTT	TGGCCTATTA	GAGGATTGCA	TAATGGAAGA
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			GTGGGTGTCA		
			CATCTGGGTA		
_			TCGGGTGACA		
			GTTCCTGACT		
			CGGCACTTGC		
			TGTCCGAAAT		
			AAAGCAGCAA		
			AAGCGCAAAG		
			GCGACAGCGA		
					GTCGTCACCG
					AACAGCCGCC
			GACAGCAACG		
					ATCTTCGAGA
			TACAAGGGCC		
					GCCTACCAAC
				•	AGTTTGCATC
					CGTCATAATC
					TATTCCAGTC
					AGTATCTTCA
					AGGTCACCAA
GGGCAAGAAG	AACCTGGGGG	GAACGGTAGT	GGCCAGCGCG	AACCGGAACA	AGGCCAAGGT

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GGACGAGGGC	GACGACGACG	ACGACGAAGA	GGCGATGCTC	GAGAACATTC	CGTTTGCCTG	
CATCATCTGC	AGGGAATCGT	ACAAGGAGCC	GATTGTGACG	AGGTGCGGGC	ACTACTTTTG	
CCTGCCGTGC	GCTCTGCAGC	GGTACAAGAA	GGATCCGACG	TGTGCGGCGT	GTGGCTCGGG	
CACGAATGGC	GTGTTTAATT	CGGCGACGAG	GTTGAAGAAG	CTGCTGGAGA	AGAAGAGGGA	
GAGGGCGGCC	AGGAGGAGAC	AGGAGGCGAT	AGAGAGGGC	GAGGAAGTCA	GTGATGAAGA	
GGAGGAGGAG	GAGGAGGACT	GATGATGATG	GGGCNAGATG	$\mathtt{ACGATGCAG}{G}$	TCGACTCTAG	
AGATCCCCGG	TACCGAGCTC	GAATTCATCG	AT <u>GATATC</u> AG	ATCCC		
			EcoRV			

Fig. 2B

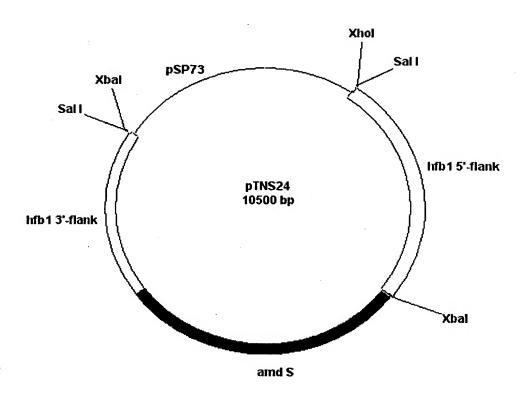


Fig. 3

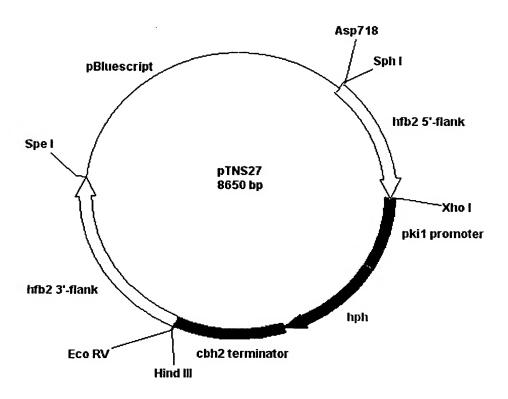


Fig. 4

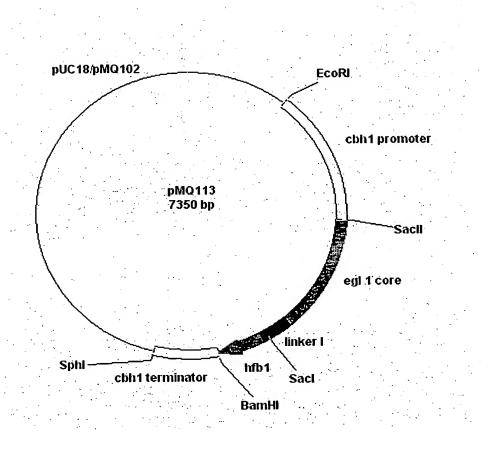


Fig. 5

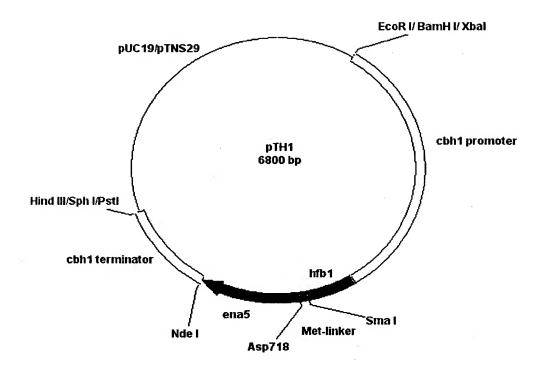


Fig. 6

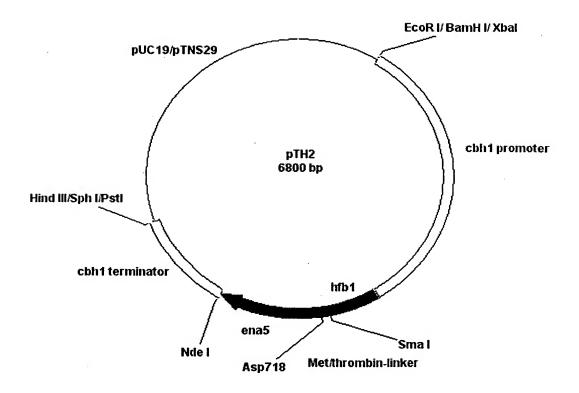
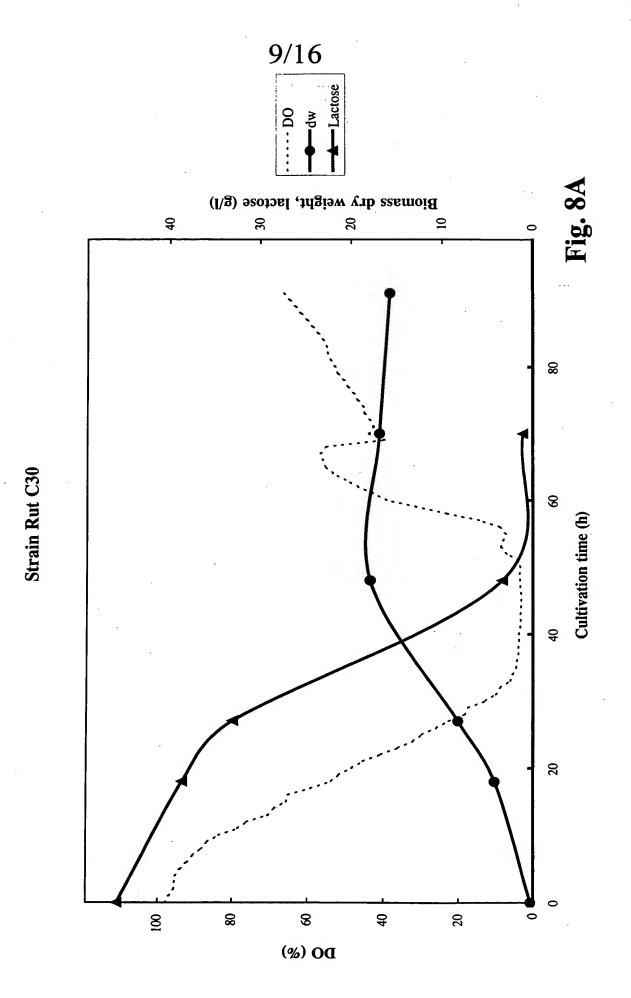


Fig. 7



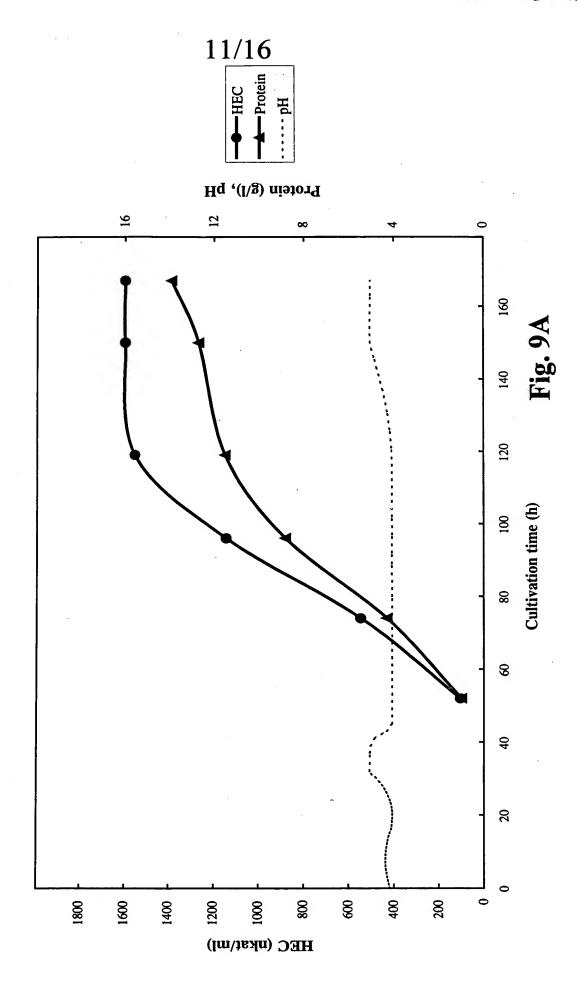
Cultivation time (h)

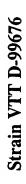
(%) Od

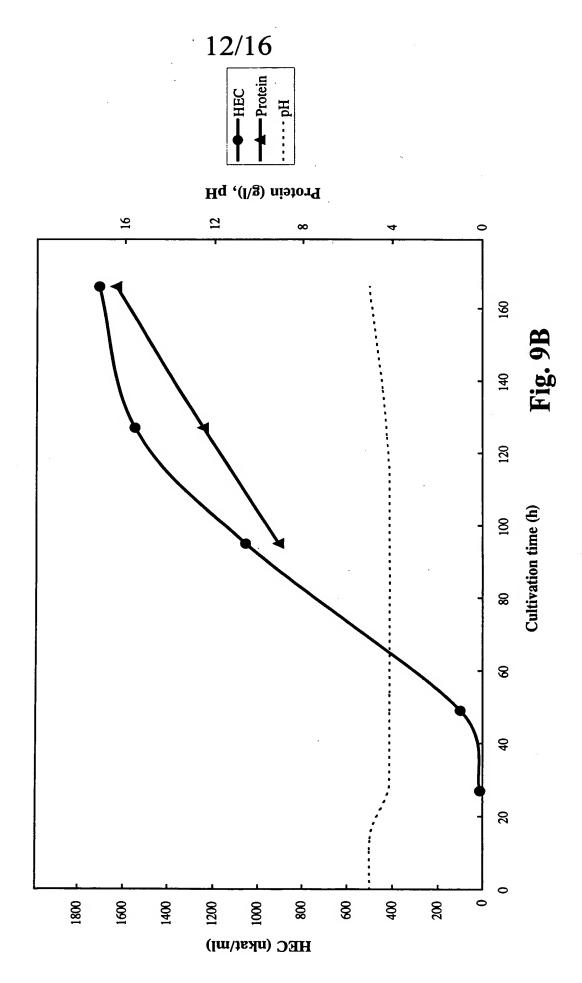
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. 1.7









- 12.

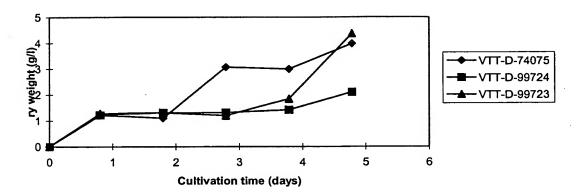


Fig. 10

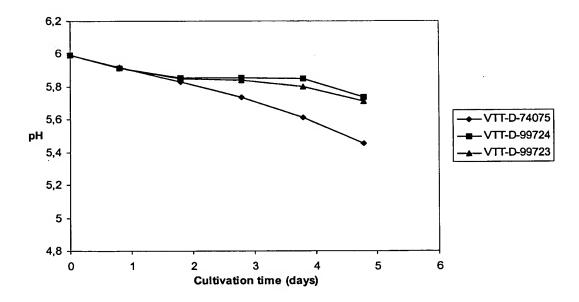


Fig. 11

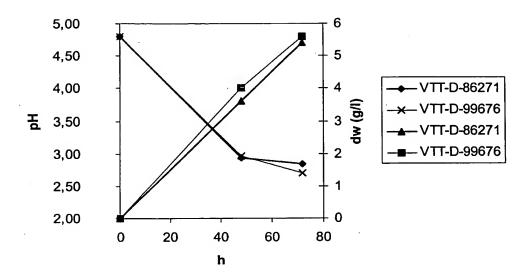


Fig. 12

